WHAT IS CLAIMED IS:

1. A single-wafer-processing type CVD apparatus for forming a thin film on an object to be processed, which comprises: a reaction chamber, a susceptor for placing said object thereon, which is provided inside said reaction chamber; a shower plate for emitting a jet of reaction gas to said object, which is disposed parallel and opposing to said susceptor; an orifice for bringing a liquid raw material for deposition and a carrier gas into said reaction chamber, which is formed through a ceiling of said reaction chamber; an evaporation plate for vaporizing said liquid raw material, which is disposed in a space between said ceiling of said reaction chamber and said shower plate; and a temperature controller for controlling said shower plate and said evaporation plate at respective given temperatures.

2. The apparatus as claimed in Claim 1, wherein a base area of said evaporation plate is within the range of 80% to 120% of a base area of said space.

3. The apparatus as claimed in Claim 1, wherein the given temperature of said evaporation plate is within the range of 40°C to 300°C.

4. The apparatus as claimed in Claim 3, wherein the given temperature of said shower plate is in the range of 0-50°C higher than the temperature of said evaporation plate.

5. The apparatus as claimed in Claim 1, wherein said temperature controller comprises one or more heaters which are arranged adjacently to said evaporation plate and to said shower plate, one or more cooler which are arranged adjacently to said evaporation plate and to said shower plate, temperature detectors which are respectively linked to said evaporation plate and to said shower plate, a temperature regulator which is linked to said heater, said cooler and said temperature detectors.

6. The apparatus as claimed in Claim 1, wherein said liquid raw material is a solution wherein a metal complex raw material or a solid raw material used for deposition is dissolved in a solvent.

7. The apparatus as claimed in Claim 1, wherein said carrier gas is an inert gas.

8. The apparatus as claimed in Claim 1, which further comprises a pressure detector for detecting a pressure in a space between the ceiling of said reaction chamber and said evaporation plate, and a pressure detector for detecting a pressure in a space between said shower plate and said susceptor.

9. The apparatus as claimed in Claim 1, wherein the evaporation plate is a hollow plate having an upper plate, a lower plate, and an interior therebetween, said upper plate and said lower plate having pores wherein the liquid raw material flows through the pores of the upper plate, the interior, and the pores of the lower plate toward the shower plate.

10. The apparatus as claimed in Claim 9, wherein the upper plate of the evaporation plate is a conical or convex surface on which the liquid raw material flows from the center to the periphery of the upper plate.

11. The apparatus as claimed in Claim 9, wherein the pores of the upper plate are arranged in the vicinity of the periphery of the upper plate.

12. A method for forming a thin film on an object to be processed using a CVD apparatus, which comprises the steps of: introducing a liquid raw material for deposition and a carrier gas into a reaction chamber through an orifice disposed in a ceiling of the reaction chamber; receiving and vaporizing the liquid raw material by an evaporation plate disposed in a space between the ceiling of said reaction chamber and a shower plate; emitting a jet of reaction gas from the shower plate to the object placed on a susceptor disposed parallel to the shower plate; and controlling said shower plate and said evaporation plate at respective given temperatures.

13. The method as claimed in Claim 12, wherein the given temperature of said evaporation plate is within the range of 40°C to 300°C.

14. The method as claimed in Claim 13, wherein the given temperature of said shower plate is in the range of 0-50°C higher than the temperature of said evaporation plate.

15. The method as claimed in Claim 12, wherein said liquid raw material is a solution wherein a metal complex raw material or a solid raw material used for deposition is dissolved in a solvent.

16. The method as claimed in Claim 12, wherein said carrier gas is an inert gas.

17. The method as claimed in Claim 12, which further comprises detecting a pressure (P1) in a space between the ceiling of said reaction chamber and said evaporation plate, and detecting a pressure (P2) in a space between said shower plate and said susceptor, thereby controlling an appropriate feed rate of the liquid raw material.

18. The method as claimed in Claim 17, wherein when detecting a fluctuation of P1, at least either of the flow of the liquid raw material or the temperature of the evaporation plate is adjusted to stabilize P1.

19. The method as claimed in Claim 12, wherein the evaporation plate is a hollow plate having an upper plate, a lower plate, and an interior therebetween, said upper plate and said lower plate having pores wherein the liquid raw material flows through the pores of the upper plate, the interior, and the pores of the lower plate toward the shower plate.

20. The method as claimed in Claim 19, wherein the upper plate of the evaporation plate is a conical or convex surface on which the liquid raw material flows from the center to the periphery of the upper plate while being heated and evaporated.

21. The method as claimed in Claim 19, wherein the pores of the upper plate are arranged in the vicinity of the periphery of the upper plate, wherein the heated and evaporated raw material flows through the pores to the shower plate.